



PATENT  
Customer No. 22,852  
New Attorney Docket No. 08350.1367-01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Scott A. LEMAN

Application No. 10/788,431

Filed: February 27, 2004

For: ENGINE VALVE ACTUATOR

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**INFORMATION DISCLOSURE STATEMENT**

Pursuant to 37 C.F.R. §§ 1.56 and 1.97(c), Applicant brings to the attention of the Examiner the documents identified on the attached listing. This Information Disclosure Statement is being filed after the events recited in Section 1.97(b) but, to the undersigned's knowledge, before the mailing date of either a Final action, Quayle action, or a Notice of Allowance. Under the provisions of 37 C.F.R. § 1.97(c), this Information Disclosure Statement is accompanied by a fee payment of \$180.00 as specified by Section 1.17(p).

Copies of the listed foreign and non-patent literature documents are attached. Copies of the U.S. patent publications are not enclosed. English abstracts of the non-English documents are enclosed.

Applicant respectfully requests that the Examiner consider the listed documents and indicate that they were considered by making appropriate notations on the attached form.

This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that each or all of the listed documents are material or constitute "prior art." If the Examiner applies any of the documents as prior art against any claims in the application and Applicant determines that the cited documents do not constitute "prior art" under United States law, Applicant reserves the right to present to the office the relevant facts and law regarding the appropriate status of such documents.


Applicant further reserves the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should one or more of the documents be applied against the claims of the present application.

If there is any fee due in connection with the filing of this Statement, please charge the fee to our Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, L.L.P.

Dated: March 21, 2005

By:   
Ryan C. Stockett  
Reg. No. 53,642

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# **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

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Application Number

10/788,431

Filing Date

February 27, 2004

First Named Inventor

Scott A. Leman

Art Unit

3748

Examiner Name

Kyle M. Riddle

Attorney Docket Number

08350.1367-01

## **U.S. PATENTS AND PUBLISHED U.S. PATENT APPLICATIONS**

Examiner Initials	Cite No. <sup>1</sup>	Document Number	Issue or Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
		2001/0002379	05-31-2001	Schechter	
		2001/0023671	09-27-2001	Vorih	
		2002/0157623	10-31-2002	Turner et al.	
		2003/0145810	08-07-2003	Leman et al.	
		2004/0118118	06-24-2004	Weber et al.	
		2004/0206331	10-21-2004	Leman	
		3,250,068	05-10-1966	Vulliamy	
		4,033,304	07-05-1977	Luria	
		4,161,166	07-17-1979	Roznovsky	
		4,206,728	06-10-1980	Trenne	
		4,561,253	12-31-1985	Curtis	
		4,643,049	02-17-1987	Nishikawa et al.	
		4,815,423	03-28-1989	Holmér	
		4,833,971	05-30-1989	Kubik	
		5,327,858	07-12-1994	Hausknecht	
		5,363,816	11-15-1994	Yorita et al.	
		5,408,979	04-25-1995	Backlund et al.	
		5,445,128	08-29-1995	Letang et al.	
		5,586,531	12-24-1996	Vittorio	
		5,615,646	04-01-1997	Feucht	
		5,713,331	02-03-1998	Eisenbacher et al.	
		5,732,678	03-31-1998	Lindquist et al.	
		5,816,216	10-06-1998	Egashira et al.	
		5,829,397	11-03-1998	Vorih et al.	
		5,839,400	11-24-1998	Vattaneo et al.	
		5,839,453	11-24-1998	Hu	
		5,927,075	07-27-1999	Khair	
		6,006,706	12-28-1999	Kanzaki	
		6,020,651	02-01-2000	Nakamura et al.	
		6,026,786	02-22-2000	Groff et al.	
		6,101,998	08-15-2000	Tamura et al.	
		6,135,073	10-24-2000	Feucht et al.	
		6,170,441	01-09-2001	Haldeman et al.	
		6,209,516	04-03-2001	Yamashita	

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## U.S. PATENTS AND PUBLISHED U.S. PATENT APPLICATIONS

	6,237,551	05-29-2001	Macor et al.	
	6,244,257	06-12-2001	Hu	
	6,267,107	07-31-2001	Ward	
	6,273,076	08-14-2001	Beck et al.	
	6,279,550	08-28-2001	Bryant	
	6,301,887	10-16-2001	Gorel et al.	
	6,301,889	10-16-2001	Gladden et al.	
	6,302,076	10-16-2001	Bredy	
	6,439,195	08-27-2002	Warner	
	6,467,452	10-22-2002	Duffy et al.	
	6,571,765	06-03-2003	Kuboshima et al.	
	6,651,618	11-25-2003	Coleman et al.	
	6,688,280	02-10-2004	Weber et al.	
	6,772,742	08-10-2004	Lei et al.	

Note: Copies of the U.S. Patent Documents are not Required in IDS filed after October 21, 2004

## FOREIGN PATENT DOCUMENTS

Examiner Initials	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Translation <sup>6</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
		WO 98/02653 PCT	01/22/98	Bryant		
		WO 01/20150	03-22-2001	Diesel Engine		
		JP 05106415 A2	04-27-1993	Toshiaki		ABS
		JP 2000-120457	04-25-2000	Haruyuki		ABS
		JP 2000-145484	05-26-2000	Yukihiro		ABS

## NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Translation <sup>6</sup>
		<a href="http://www.mazda.com.au/corpora/209.html">http://www.mazda.com.au/corpora/209.html</a> , Oct. 16, 2001, pg. 1-6.	
		YORIHIO FUKUZAWA et al., "Development of High Efficiency Miller Cycle Gas Engine", Mitsubishi Heavy Industries, Ltd., Technical Review, vol. 38, No. 3, Oct. 2001, pp. 146-150	
		Request for <i>Inter Partes</i> Reexamination Transmittal Form for US Patent 6,688,280, and Attachment to Request for <i>Inter Partes</i> Reexamination Transmittal Form, September 17, 2004; Order Granting/Denying Request for <i>Inter Partes</i> Reexamination for Control No. 95/000,050 dated December 10, 2004; Office Action dated December 10, 2004, in <i>Inter Partes</i> Reexamination for Control No. 95/000,050; Patent Owner's Response To Office Action, filed January 24, 2005, including Exhibits A and B; Comments of Requester, filed February 23, 2005, including Declaration of Jack A. Ekchian, Ph.D., including Exhibit A; Exhibit B: Dresner et al., "A Review and Classification of Variable Valve Timing Mechanisms", SAE Technical Paper Series, March 1989; and Exhibit C: Dickey et al., "Nox Control in Heavy-Duty Diesel Engines - What is the Limit?" SAE Technical Paper Series, Feb. 1998; and including Declaration of David F. Merion, including Exhibit A and Exhibit B: Dresner et al., "A Review and Classification of Variable Valve Timing Mechanisms", SAE Technical Paper Series, March 1989.	

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Request for *Inter Partes* Reexamination Transmittal Form for US Patent 6,651,618, and Attachment to Request for *Inter Partes* Reexamination Form, August 27, 2004; Order Granting/Denying Request for *Inter Partes* Reexamination for Control No. 95/000,049 dated November 23, 2004; Office Action in *Inter Partes* Reexamination for Control No. 95/000,049 dated November 23, 2004; Patent Owner's Response to Office Action, filed January 24, 2005, including Exhibits A and B; Comments of Requester, filed February 23, 2005, including Declaration of Jack A. Ekchian, Ph.D., including Exhibit A, Exhibit B: Dresner et al., "A Review and Classification of Variable Valve Timing Mechanisms", SAE Technical Paper Series, March 1989; and Exhibit C: Dickey et al., "Nox Control in Heavy-Duty Diesel Engines - What is the Limit?" SAE Technical Paper Series, Feb. 1998; and including Declaration of David F. Merrion, including Exhibit A and Exhibit B: Dresner et al., "A Review and Classification of Variable Valve Timing Mechanisms", SAE Technical Paper Series, March 1989.

Office Action dated June 2, 2003, for U.S. patent application No. 10/370,852; Amendment filed July 10, 2003.

Office Action dated June 2, 2003, for U.S. patent application No. 10/143,908; Reply to Office Action filed Sept. 2, 2003.

OBERT, "Internal Combustion Engines and Air Pollution," Based on Internal Combustion Engines, Third Edition, 1973, pages 612-614

EDWARDS et al., "The Potential of a Combined Miller Cycle and Internal EGR Engine for Future Heavy Duty Truck Applications," SAE International, International Congress and Exposition, February 23-26, 1998, pages 1-19

CHALLENGE et al., "Diesel Engine Reference Book, Second Edition," SAE International, 1999, pages 75, 81, 84, 146, and 263-305

Co-pending Application No. 10/992,198; Attorney Docket No. 8350.1314-01  
Title: COMBUSTION ENGINE INCLUDING FLUIDICALLY-DRIVEN ENGINE VALVE ACTUATOR  
U.S. Filing Date: November 19, 2004.

Co-pending Application No. 10/992,137; Attorney Docket No. 8350.1367-02  
Title: COMBUSTION ENGINE INCLUDING FLUIDICALLY-CONTROLLED ENGINE VALVE ACTUATOR  
U.S. Filing Date: November 19, 2004.

Office Action dated May 28, 2004, for U.S. Patent Application No. 10/733,570; Attorney Docket No. 8350.1649-02; Amendment filed on Nov. 24, 2004.

Co-pending Application No. 10/933,300; Attorney Docket No. 8350.1649-03  
Title: AIR AND FUEL SUPPLY SYSTEM FOR COMBUSTION ENGINE  
U.S. Filing Date: September 3, 2004.

Co-pending Application No. 10/992,074; Attorney Docket No. 8350.1649-04  
Title: COMBUSTION ENGINE INCLUDING CAM PHASE-SHIFTING  
U.S. Filing Date: November 19, 2004.

Co-pending Application No. 10/992,866; Attorney Docket No. 8350.1649-05  
Title: AIR AND FUEL SUPPLY SYSTEM FOR COMBUSTION ENGINE WITH PARTICULATE TRAP  
U.S. Filing Date: November 19, 2004.

Co-pending Application No. 10/992,857; Attorney Docket No. 8350.1649-06  
Title: AIR AND FUEL SUPPLY FOR COMBUSTION ENGINE OPERATING AT OPTIMUM ENGINE SPEED  
U.S. Filing Date: November 19, 2004.

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		Co-pending Application No. 10/992,897; Attorney Docket No. 8350.1649-07 Title: AIR AND FUEL SUPPLY SYSTEM FOR COMBUSTION ENGINE U.S. Filing Date: November 19, 2004.	
		Co-pending Application No. 10/933,065; Attorney Docket No. 8350.1649-08 Title: AIR AND FUEL SUPPLY SYSTEM FOR COMBUSTION ENGINE OPERATING IN HCCI MODE U.S. Filing Date: November 19, 2004.	
		Co-pending Application No. 10/992,070; Attorney Docket No. 8350.1649-09 Title: COMBUSTION ENGINE INCLUDING EXHAUST PURIFICATION WITH ON-BOARD AMMONIA PRODUCTION U.S. Filing Date: November 19, 2004.	
		Co-pending Application No. 10/992,071; Attorney Docket No. 8350.2153-04 Title: COMBUSTION ENGINE INCLUDING ENGINE VALVE ACTUATION SYSTEM U.S. Filing Date: November 19, 2004.	
		Co-pending Application No. 10/992,069; Attorney Docket No. 8350.2197-01 Title: AIR AND FUEL SUPPLY SYSTEM FOR COMBUSTION ENGINE U.S. Filing Date: November 19, 2004.	
		Co-pending Application No. 10/992,125; Attorney Docket No. 8350.2575-01 Title: AIR AND FUEL SUPPLY SYSTEM FOR A COMBUSTION ENGINE U.S. Filing Date: November 19, 2004.	

Examiner  
SignatureDate  
Considered

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.